

# **Abstract**

The problems of large tables in Ethernet switches used on a metropolitan area scale, and the exposure of the enterprise network topologies, can be avoided by encapsulating each original Ethernet packet, which originates in a first network of an entity, e.g., an enterprise, a customer, or a network service provider, within another Ethernet packet which is given a source address that identifies the new encapsulating packet as originating at a port of a switch that is located at the interface between the first network in which the original packet originated and a second Ethernet network, e.g., the metropolitan area Ethernet network, which is to transport the encapsulating packet.

When the encapsulating packet would exceed the allowable Ethernet packet length, the original packet may be split up at the interface between the first and second network and the resulting parts encapsulated into two encapsulating packets.